CLAIMS

WHAT IS CLAIMED:

1. A method, comprising:

determining at least one initial inclination of at least one orientation sensor coupled to a seismic cable;

determining at least one current inclination of the at least one orientation sensor; and

determining whether the at least one seismic cable has moved from the at least one initial inclination and the at least one current inclination.

2. The method of claim 1, further comprising re-positioning the cable in response to determining that the at least one seismic cable has moved.

3. The method of claim 2, wherein re-positioning the seismic cable comprises performing a cable position determination operation.

4. The method of claim 2, wherein re-positioning the seismic cable comprises physically moving the seismic cable.

5. The method of claim 1, wherein determining whether the seismic cable has moved comprises comparing an initial value of a DC signal of the at least one orientation sensor to a current value of a DC signal of the at least one orientation sensor.

6. The method of claim 5, wherein the seismic cable includes a plurality of orientation sensors coupled thereto, and wherein comparing the at least one initial inclination and the at

least one current inclination comprises comparing a plurality of initial inclinations and a plurality of current inclinations of the plurality of orientation sensors.

7. The method of claim 1, further comprising performing a seismic sensing operation in response to determining that the at least one seismic cable has not moved.

8. The method of claim 1, further comprising re-calibrating a seismic coupling of the at least one seismic sensor to a floor of a body of water.

9. The method of claim 1, further comprising at least one seismic sensor coupled to the seismic cable.

10. The method of claim 9, where in the at least one orientation sensor is coupled to the at least one seismic sensor.

11. The method of claim 9, wherein the at least one seismic sensor is capable of performing the functions of the orientation sensor.

12. The method of claim 1, wherein determining a current inclination comprises determining the current inclination after a seismic survey is complete.

13. The method of claim 1, wherein determining the current inclination comprises determining the current inclination at a selected time during the seismic survey.

14. The method of claim 13, wherein determining the current inclination at the selected time during the seismic survey comprises determining the current inclination at a plurality of selected times during the seismic survey.

15. The method of claim 1, wherein the orientation sensor is at least one of an inclinometer, a tiltmeter, a gyroscopic inclinometer, and a magnetic sensor.

16. A system for carrying out a seismic survey, comprising:

at least one seismic cable;

at least one seismic sensor coupled to the at least one seismic cable;

at least one orientation sensor coupled to the at least one seismic cable; and

a signal processing unit capable of:

determining at least one initial inclination of the at least one orientation sensor;

determining at least one current inclination of the at least one orientation sensor; and

determining whether the at least one seismic cable has moved using the at least one initial inclination and the at least one current inclination.

17. The system of claim 16, wherein the signal processing unit is capable of determining whether the seismic cable has moved by comparing the at least one initial inclination and the at least one current inclination.

18. The system of claim 17, wherein the signal processing unit is capable of comparing the at least one initial inclination and the at least one current inclination by comparing an initial value of a DC signal of the at least one orientation sensor to a current value of a DC signal of the at least one orientation sensor.

19. The system of claim 17, further comprising a plurality of orientation sensors coupled to the seismic cable, and wherein the signal processing unit is capable of determining whether the seismic cable moved by comparing a plurality of initial inclinations and a plurality of current inclinations of the plurality of orientation sensors.

20. The system of claim 16, further comprising a first survey vessel, and wherein the at least one cable is coupled to the first survey vessel.

21. The system of claim 16, further comprising at least one survey vessel capable of performing a cable positioning operation.

22. The system of claim 21, wherein the cable positioning operation comprises a cable position determination operation.

23. The system of claim 21, wherein the cable positioning operation comprises physically moving the seismic cable.

23. The system of claim 21, wherein the at least one survey vessel capable of performing a cable positioning operation is capable of performing the cable positioning operation in response to the signal processing unit determining that the seismic cable has moved.

25. The system of claim 16, wherein the at least one orientation sensor is at least one of a single and a dual axis accelerometer formed on an integrated circuit chip.

26. The system of claim 16, wherein the at least one orientation sensor is at least one of a tiltmeter and a gyroscopic inclinometer.

27. The system of claim 16, wherein the at least one seismic sensor is capable of performing the functions of the orientation sensor.

28. An article comprising one or more machine-readable storage media containing instructions that when executed enable a processor to:

determine at least one initial inclination of at least one orientation sensor coupled to a seismic cable;

determine at least one current inclination of the at least one orientation sensor; and

determine whether the at least one seismic cable has moved using the at least one initial inclination and the at least one current inclination.

29. The article of claim 28, comprising one or more machine-readable storage media containing instructions that when executed enable a processor to determine whether the

seismic cable has moved by comparing the at least one initial inclination and the at least one current inclination.

30. The article of claim 29, comprising one or more machine-readable storage media containing instructions that when executed enable a processor to compare an initial value of a DC signal of the at least one orientation sensor to a current value of a DC signal of the at least one orientation sensor.

31. The article of claim 28, comprising one or more machine-readable storage media containing instructions that when executed enable a processor to compare a plurality of initial inclinations and a plurality of current inclinations of the plurality of orientation sensors.

32. The article of claim 28, comprising one or more machine-readable storage media containing instructions that when executed enable a processor to determine a seismic coupling between the at least one seismic sensor and a floor of a body of water.

33. An apparatus, comprising:

means for determining at least one initial inclination of at least one orientation sensor coupled to a seismic cable;

means for determining at least one current inclination of the at least one orientation sensor; and

means for determining whether the at least one seismic cable has moved using the at least one initial inclination and the at least one current inclination.

34. The apparatus of claim 33, comprising means for determining whether the seismic cable has moved by comparing the at least one initial inclination and the at least one current inclination.

35. The apparatus of claim 34, comprising means for comparing an initial value of a DC signal of the at least one orientation sensor to a current value of a DC signal of the at least one orientation sensor.

36. The apparatus of claim 33, comprising means for comparing a plurality of initial inclinations and a plurality of current inclinations of the plurality of orientation sensors.